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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,074	06/25/2003	Robert S. Weiner	04615-0100 33,213	4253
3490	7590	08/08/2006	EXAMINER	
DOUGLAS T. JOHNSON MILLER & MARTIN 1000 VOLUNTEER BUILDING 832 GEORGIA AVENUE CHATTANOOGA, TN 37402-2289			STAIKOVICI, STEFAN	
			ART UNIT	PAPER NUMBER
			1732	

DATE MAILED: 08/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/606,074	<b>Applicant(s)</b> WEINER, ROBERT S.	
	<b>Examiner</b> Stefan Staicovici	<b>Art Unit</b> 1732	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

1. Applicant's amendment filed May 22, 2006 has been entered. Claims 1-20 are pending in the instant applications.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 11-13, 15-17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weiner *et al.* (US Patent No. 6,696,004 B1) in view of Lussi *et al.* (US Patent No. 5,015,516).

Weiner *et al.* ('004) teach the basic claimed process for making a vinyl sheet product including, placing a first vinyl layer onto a conveyor (20), imbedding a decorative mesh material (26) into said vinyl layer and curing said vinyl layer to form said vinyl sheet (see col. 7, lines 15-63).

Regarding claims 1, 15 and 19, although Weiner *et al.* ('004) teach a decorative mesh material, Weiner *et al.* ('004) do not teach a decorative material in the form of drips, streams, chips or pellets, specifically, PVC particles. However, the use of vinyl chips as a decorative material in making a vinyl sheet is well known as evidenced by Lussi *et al.* ('516) who teach a

process for making a decorative vinyl sheet including, embedding a plurality of PVC particles into a substrate to form a decorative layer (see col. 7, lines 10-62). Therefore, it would have been obvious for one of ordinary skill in the art to provide the PVC particles of Lussi *et al.* ('516) as a decorative material in the process of Weiner *et al.* ('004), because Lussi *et al.* ('516) teach that such particles provide for enhanced decorative characteristics, hence providing for an improved product due to aesthetic characteristics. Further, it is noted that because the PVC particles are much smaller than the vinyl layer, that said particles do not completely cover the surface of the conveyor.

Further regarding claim 1, Weiner *et al.* ('004) in view of Lussi *et al.* ('516) do not teach the claimed order of the process steps. However, whether the decorative particles are placed first on the conveyor and then the vinyl layer is applied or vice versa is obvious one over the other without any other evidence of unexpected results. Therefore, it would have been obvious for one of ordinary skill in the art to have reversed the order in the process of Weiner *et al.* ('004) in view of Lussi *et al.* ('516) due to a variety of known advantages such as optimum equipment set-up, reduced waste by improved thickness control of the vinyl layer and also because, whether the decorative PVC particles are placed first on the conveyor and then the vinyl layer is applied or vice versa results in the same laminate structure without any unexpected results.

In regard to claim 2, Weiner *et al.* ('004) teach imbedding a first decorative article (scrim) (26) into said vinyl layer.

Specifically regarding claims 11-12 and 16-17, Weiner *et al.* ('004) in view of Lussi *et al.* ('516) teach a first decorative material in the form of PVC particles and a second decorative material in the form of a metallic mesh (scrim).

Regarding claim 13, Weiner *et al.* ('004) teach an oven (24) for curing said vinyl laminate (see Figure 7) and then cooling in order to cut said laminate into tiles (see col. 2, lines 24-33).

4. Claims 3 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weiner *et al.* (US Patent No. 6,696,004 B1) in view of Lussi *et al.* (US Patent No. 5,015,516) and in further view of Weiner *et al.* (US Patent No. 6,903,033 B1).

Weiner *et al.* ('004) in view of Lussi *et al.* ('516) teach the basic claimed process as described above.

Regarding claims 3 and 18, Weiner *et al.* ('004) in view of Lussi *et al.* ('516) do not teach a second vinyl layer. Weiner *et al.* ('033) teach a process for making a vinyl sheet product including, embedding a mesh layer between first and second vinyl layers (see col. 2, lines 14-25). Therefore, it would have been obvious for one of ordinary skill in the art to provide a second vinyl layer as taught by Weiner *et al.* ('033) to the vinyl sheet product formed by the process of Weiner *et al.* ('004) in view of Lussi *et al.* ('516) because, Weiner *et al.* ('033) specifically teaches that a second vinyl layer provides for improved aesthetic characteristics, hence providing for an improved product.

5. Claims 4-5 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weiner *et al.* (US Patent No. 6,696,004 B1) in view of Lussi *et al.* (US Patent No. 5,015,516) and in further view of Erb (US Patent No. 3,350,483).

Weiner *et al.* ('004) in view of Lussi *et al.* ('516) teach the basic claimed process as described above.

Regarding claim 4, Weiner *et al.* ('004) in view of Lussi *et al.* ('516) do not teach a liquid design material. However, the use of liquid design material in making a vinyl sheet is well known as evidenced by Erb ('483) who teaches a process for making a decorative vinyl sheet by using a liquid design material (see col. 1, lines 45-58). Therefore, it would have been obvious for one of ordinary skill in the art to provide a liquid design material as taught by Erb ('483) to make the vinyl sheet in the process of Weiner *et al.* ('004) in view of Lussi *et al.* ('516) because Erb ('483) specifically teaches that a liquid design material provides for making a swirling pattern, hence providing for improved aesthetic characteristics.

In regard to claims 5 and 20, Erb ('483) teaches partially curing the liquid design material (col. 2, lines 59-63) and lateral motion of the liquid design material applicator device (col. 2, lines 35-47). Therefore, it would have been obvious for one of ordinary skill in the art to apply the liquid design material by a lateral motion and to partially cure said liquid design material as taught by Erb ('483) to make the vinyl sheet in the process of Weiner *et al.* ('004) in view of Lussi *et al.* ('516) because Erb ('483) specifically teaches that such procedures applied to the liquid design material provides for making a swirling pattern, hence providing for improved aesthetic characteristics.

6. Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weiner *et al.* (US Patent No. 6,696,004 B1) in view of Lussi *et al.* (US Patent No. 5,015,516) and in further view of Erb (US Patent No. 3,350,483) and Hensler *et al.* (US Patent No. 5,695,696).

Weiner *et al.* ('004) in view of Lussi *et al.* ('516) and in further view of Erb ('483) teach the basic claimed process as described above.

Regarding claims 6-7, Weiner *et al.* ('004) in view of Lussi *et al.* ('516) and in further view of Erb ('483) do not teach a hopper having a plurality of orifices. Hensler *et al.* ('696) teach a process for making a vinyl sheet including, providing a hopper having a plurality of orifices that allows forming a vinyl sheet product having at least two colors (see col. 2, lines 28-52). Therefore, it would have been obvious for one of ordinary skill in the art to have provided a hopper having a plurality of orifices as taught by Hensler *et al.* ('696) in the process of Weiner *et al.* ('004) in view of Lussi *et al.* ('516) and in further view of Erb ('483) because, Hensler *et al.* ('696) teach that such a hopper allows forming a vinyl sheet product having at least two colors, hence providing for an improved product and also because Erb ('483) teaches a liquid design material feeding mechanism including a plurality of nozzles, hence suggesting a hopper having a plurality of orifices.

In regard to claims 8-9, although Weiner *et al.* ('004) in view of Lussi *et al.* ('516) and in further view of Erb ('483) and Hensler *et al.* ('696) teach a hopper, Weiner *et al.* ('004) in view of Lussi *et al.* ('516) and in further view of Erb ('483) and Hensler *et al.* ('696) do not teach a vibrating hopper. However, the use of a vibrating hopper is well known in the art. Hence, it would have been obvious for one of ordinary skill in the art to have provided a vibrating hopper

in the process of Weiner *et al.* ('004) in view of Lussi *et al.* ('516) and in further view of Erb ('483) and Hensler *et al.* ('696) because of known advantages such as a uniform distribution of vinyl material, hence providing for an improved product by having a more precise control of the product thickness and also because, Erb ('483) teaches applying a lateral motion to the liquid design material feeding mechanism, hence suggesting a vibrating hopper having a plurality of nozzles.

Specifically regarding claim 10, Weiner *et al.* ('004) in view of Lussi *et al.* ('516) and in further view of Erb ('483) do not teach embossing rollers. Hensler *et al.* ('696) teach a process for making a vinyl sheet including, providing embossing rollers (42, 44) that generate a desired surface texture (see col. 2, lines 44-50). Therefore, it would have been obvious for one of ordinary skill in the art to have provided embossing rollers as taught by Hensler *et al.* ('696) in the process of Weiner *et al.* ('004) in view of Lussi *et al.* ('516) and in further view of Erb ('483) because, Hensler *et al.* ('696) specifically teach embossing rollers that provide a desired texture, hence provide for an improved product.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weiner *et al.* (US Patent No. 6,696,004 B1) in view of Lussi *et al.* (US Patent No. 5,015,516) and in further view of Suzuki *et al.* (US Patent No. 6,589,631 B1).

Weiner *et al.* ('004) in view of Lussi *et al.* ('516) teach the basic claimed process as described above.

Regarding claims 14, Weiner *et al.* ('004) in view of Lussi *et al.* ('516) do not teach a conveyor belt having a varying texture that is transmitted to said vinyl sheet product. Suzuki *et*

*al.* ('631) teach a process for making vinyl floor covering including using a conveyor texture to transfer a desired pattern to said vinyl floor covering. Therefore, it would have been obvious for one of ordinary skill in the art to have provided a conveyor texture as taught by Suzuki *et al.* ('631) in the process of Weiner *et al.* ('004) in view of Lussi *et al.* ('516) because, Suzuki *et al.* ('631) teach that such a texture is transferred to the resulting vinyl floor covering, thereby providing an anti-skid surface, hence providing for an improved product.

#### ***Response to Arguments***

8. Applicant's arguments filed May 22, 2006 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Staicovici, Ph.D. whose telephone number is (571) 272-1208. The examiner can normally be reached on Monday-Friday 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson, can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1732

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stefan Staicovici, PhD

  
Primary Examiner 8/7/06

AU 1732

August 7, 2006